To: Sprenger, Mark[Sprenger.Mark@epa.gov]; Allen, HarryL[Allen.HarryL@epa.gov];

slb@u.washington.edu[slb@u.washington.edu]

Compton, Harry[Compton.Harry@epa.gov]; Mahoney, Michele[Mahoney.Michele@epa.gov] Cc:

From: Chaney, Rufus

Sent: Wed 8/19/2015 5:53:58 PM

Subject: RE: Help!!

Mark --

The effect of Fe and AI on P is in acidic soils (<6; especially <5.5) where the P can be adsorbed to, or precipitate with the Fe or Al. At high pH those are very low solubility and P sorption is unimportant. Ca-P controls the P-solubility and plant availability of the P. So if the water is neutral to alkaline when used on the farm fields, there should be no effect on fertility.

Rufus

----Original Message-----

From: Sprenger, Mark [mailto:Sprenger.Mark@epa.gov]

Sent: Wednesday, August 19, 2015 1:50 PM

To: Allen, HarryL; slb@u.washington.edu; Chaney, Rufus

Cc: Compton, Harry; Mahoney, Michele

Subject: RE: Help!!

Please if someone believes I am incorrect say so...but I believe the loading of the Fe and Al by itself is not an issue, Al is only toxic if the pH is low, depending upon the soil, I'm not sure the sediment loading would greatly change the total AI in the soil. From a farming perspective the loading could have a short term effect on phosphate availability, if I recall correctly the formation of Al-phosphate and Fe-phosphate in soils is a mechanism of loss of available phosphate - basically one of the reasons why farmers need to fertilize.

----Original Message-----

From: Allen, HarryL

Sent: Wednesday, August 19, 2015 1:25 PM

To: slb@u.washington.edu; Rufus.Chaney@ARS.USDA.GOV Cc: Sprenger, Mark; Compton, Harry; Mahoney, Michele

Subject: Help!! Importance: High

Hi Sally & Rufus - maybe Mark you have an idea too, I could really use a check in with some of you today re: the impact of the Silverton Spill on the Navajo - specifically Navajo farmers. In advance of a Farm Board meeting tomorrow, I need to provide some sort of data interpretation and risk assessment today.

Specifically, I need to:

- provide general sediment and water quality comparisons to risk screening levels and pre-event conditions
- address concerns about Ferric Hydroxide complexes in suspended solids and depositional areas, floodplains etc.
- generally, present the risk message for farmers

What I have:

- estimations of the behavior of the plume generally. Current point of view is: Downstream of Four Corners, plume signature lost in noise of total and dissolved metal concentrations in Surface Water.
- estimations of wide area background concentrations in the San Juan downstream of Four Corners. These are helpful but some metals, esp total Al are right at the upper end of background estimates.
- Risk comparisons for surface water some atypical metals exceed agricultural screening levels set by Navajo Nation periodically and exceed Recreation screening levels in point-by-point comparisons. Cd,

Mg, V and Co are confounding - some were detected at the source but Navajo is also V country as well as U country.

- Risk/screening level comparisons for sediment since plume impact to present (no background available yet) but so far these meet screening levels.

Can we talk? Thanks!!

-----Original Message----From: Sally L. Brown [mailto:slb@u.washington.edu]
Sent: Monday, August 17, 2015 4:21 PM
To: Allen, HarryL
Cc: gkester@casaweb.org; Fondahl, Lauren
Subject: RE: November

Thanks Harry- been interesting to read about CO and think of it knowing risk and EPA

On Mon, 17 Aug 2015, Allen, HarryL wrote:

> Looking forward to this! We might be able cover the expenses but the CO incident is really eating our travel budget. We have almost 40 people deployed to CO, NM and AZ. We'll be in touch and hopefully we can still cover the costs.

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> ----Original Message-----
> From: Sally L. Brown [mailto:slb@u.washington.edu]
> Sent: Friday, August 14, 2015 2:09 PM
> To: gkester@casaweb.org
> Cc: Fondahl, Lauren; Allen, HarryL
> Subject: RE: November
> This is a big help- thank you and however many talks you need is fine
> On Fri, 14 Aug 2015, Greg Kester wrote:
>> Hi Sally - Yes, we want you as a speaker at our California
>> Bioresources Alliance Symposium. It will be held November 4th and 5th
>> in Sacramento. I am copying Lauren Fondahl (biosolids Coordinator)
>> and Harry Allen (Superfund) with USEPA Region 9. Lauren is the chair
>> and can share the most recent agenda with you. I think you may be
>> asked to speak twice. Harry I thought may have been covering your expenses.
>> Lauren, can you please send us the most recent agenda and Harry can
>> you please let us know if I am off base on the expenses? Thanks very
>> much! - Greg
>>
>>
>> Greg Kester
>> California Association of Sanitation Agencies Director of Renewable
>> Resource Programs
>> 1225 8th Street, Suite 595
>> Sacramento, CA 95814
>> PH: 916 446-0388
>> Mobile: 916 844-5262
>> gkester@casaweb.org
>> Ensuring Clean Water for California
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>> -----Original Message-----
>> From: Sally L. Brown [mailto:slb@u.washington.edu]
>> Sent: Friday, August 14, 2015 9:12 AM
>> To: Greg Kester
>> Subject: November
>>
>>
>>
>> Greg
>>
>> I have two days in November with your name on them but don't have any specifics. Do you still want
me to speak and if so, where, when and about what?
>>
>> Thanks
>> Sally
>>
>>
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